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Uganda

Training Teachers with Technology

From right to left, Hawa Nyede, LearnLink local Assistant Coordinator, instructing ITEK teachers in Basic Computer skills

TAKING ADVANTAGE OF LOCAL CONDITIONS

Uganda has made impressive progress toward an open economy, democratic reforms, and standard of living improvements. This happened after decades of repressive and massive inter-ethnic conflicts, despite an HIV/AIDS epidemic and *ebola* virus outbreaks, and challenges due to corruption, poverty, and an extensive demand for health care and social services. After successful 1996 presidential and parliamentary elections and 1998 Local Council elections, the government is more stable and participatory, and the country is starting to recover.

Uganda is excelling in the area of education. As a result of recent innovative experiments, the nation is emerging as a leader in African education reform. For example, the US Government offered Uganda debt relief on the condition that the savings be invested in health, education, and anti-poverty programs. In response, the national educational community used those savings to defray some of the costs of primary education previously paid by families, and the

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Government of Uganda (GOU) increased from 55% to 61% the proportion of education resources specifically allocated to primary education. While families still must bear the cost of school uniforms and transportation, the GOU has provided free education for any four children per family under the Universal Primary Education policy. These reforms prompted state primary school enrollment to rise to rise to 91% during 1996-97. Primary education is a top GOU priority, and recent developments indicate an intention to improve and expand access to quality secondary education as well.

ENTERING THE INFORMATION AGE

One of Uganda's most progressive reforms, overall, is its move into the information technology (IT) age. Uganda was one of the first eleven countries on the continent to connect to the Internet, and prospects for the expansion of computer technology look good. Stakeholders are now proposing the development of a national IT policy, and in the last five years, the telecommunications monopoly has been opened up to investors. As a sign of the appeal of IT, cyber cafes have opened in Kampala, providing a popular gathering place for youth, students, and business people in the capital city.

Zoom in on Uganda

Geography

Location: Eastern Africa, west of Kenya

Area: 236,040 sq km

Environmental issues: draining of wetlands for agricultural use; deforestation; overgrazing; soil erosion; poaching

People

Population: 23,317,560

Age: 51% <14 years; 47% 15-64 years; 2% >65 years

Infant deaths: 93.25 deaths/1,000 live births

Life expectancy at birth: 42.93 years

Total fertility rate: 6.96 children born/woman

Ethnicity: Baganda 17%, Karamojong 12%, Basogo 8%, Iteso 8%, Langi 6%, 48% other

Religions: Roman Catholic 33%, Protestant 33%, Muslim 16%, indigenous beliefs 18%

Languages: English (official national language)

Literacy: 61.8%; male: 73.7%; female: 50.2%

Gross primary school enrollment: 74%

Gross secondary school enrollment: 12%

Economy

GDP: $1,060 per person

Population below poverty line: 55%

Inflation rate (consumer prices): 7%

External debt: $3.1 billion

Communications

Telephones lines: 54,074

Telephones (mobile cellular): 9,000

Radio stations: AM 19, FM 4, shortwave 5

Radios: 2.6 million

Television stations: 8

Televisions: 315,000

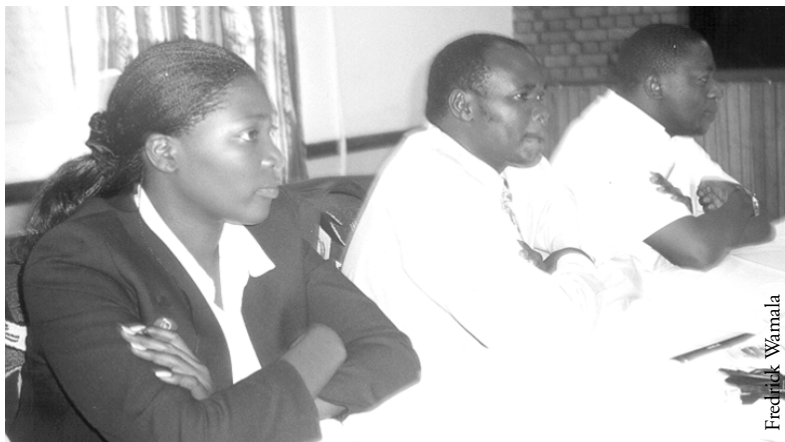**Internet Service Providers (ISPs):** 3

Internet users: 11.82 per 10,000 persons

The World Factbook, 2000

www.odci.gov/publications/factbook/

www.itu.int/ti/industryoverview/at_glance/Internet99.pdf

www.worldbank.org/data/wdi2000/pdfs/tab2_10.pdf

From left to right, Cissy Segujja-Nakazzi, a LearnLink local Assistant Coordinator, an ITEK teacher, and Charles Musisi, a Computer Frontiers International staff member, collaborating at a partners meeting

Uganda is using its computer capability in the service of education. Perhaps the most valuable application is the integration of information and communication technologies (ICTs) into professional development programs for teachers. With nearly half of its population under 15 years of age, Uganda's need for qualified teachers is great and growing, and a new ICT program is helping to bolster efforts to train teachers.

ICTS IN THE SERVICE OF EDUCATION

AED/LearnLink's new Connect-ED program grew out of President Clinton's
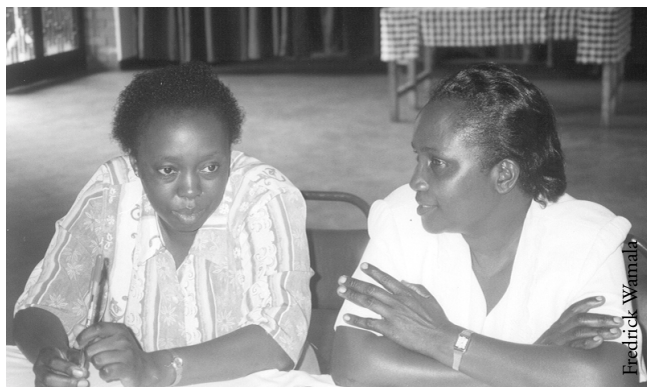
From left ot right, Sara Mayanja, a USAID Education Specialist, and the ITEK secretary at a Coordinating Partners Meeting

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Education for Development and Democracy Initiative (EDDI). At EDDI's Connect-ED signing, US Ambassador Brennan emphasized that the initiative would contribute to the US goal of increasing access to better economic opportunities in Uganda through quality education in a democratic setting. Also, the spread of ICT access is within the purview of the Africa Global Information Infrastructure Gateway project and the Leland Initiative, which is coordinating the Connect-ED collaboration. Finally, improving professional development for primary level educators is a USAID/ Uganda objective.

Within Connect-ED, one AED/ LearnLink activity is to assist in the implementation of computer-mediated training for primary school teachers. Training in basic computer skills, conducted by AED/LearnLink and its partners began in the Fall of 2000 at the Institute of Teacher Education at Kyambogo (ITEK), a government-supported teacher training institute, and at four Primary Teacher Colleges (PTCs) in Shimoni near the city of Kampala, Gulu, Mukuju near the city of Tororo, and Bushenyi. In early 2001, training will take place with state-of-the art equipment at a newly constructed multimedia training center at ITEK.

AED/LearnLink's primary role is working with its partners to develop six online learning modules drawn from ITEK's courses in Science and Health Education, Social Studies, Foundations of Education,

From left to right, Fredrick Wamala, LearnLink local Coordinator, training Enosi Ssemanda and Phoebe Kigenyi, the counterpart teachers who are spearheading multimedia development and training at ITEK

Language Education, Mathematics, and Cultural Education. The modules follow a standardized framework that ITEK can extend to other coursework in the future. Upon completion, each module will be tested with participants from ITEK and the PTCs. In addition, multimedia resources are being recorded on CD-ROM as part of a digital resource library for teachers. Also, selected ITEK teachers are learning how to enrich courses and programs using ICTs.

The modules are being reformulated into interactive media and are incorporating feedback from focus groups of 7-10 PTC tutors who shared their visions of how to enrich textbook study with a multimedia,

digitized curricula. They also identified "trouble spots" in the existing curricula for both teachers and students and topics for which there are a shortage of reference materials. The final online version of the modules will reflect alpha and beta testing as well as focus group feedback, before they are linked to the website.
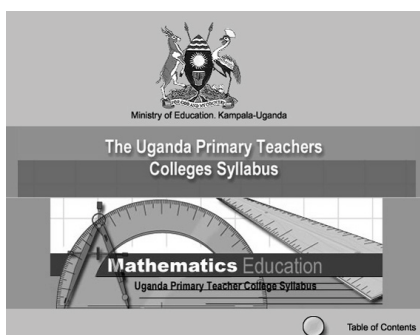
Web page for Math subject

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THE INTRICATE INVOLVEMENT OF PARTNERS

The Connect-ED training activities and provision of facilities/equipment are possible due to the combined efforts of partners from the public, private, and voluntary sectors. For instance, Computers Frontiers International posts project progress at the temporary web site www.connected.co.ug. While AED/LearnLink was spearheading the refurbishment of equipment at the existing ITEK multimedia development laboratory, ITEK and AED/LearnLink built an air-conditioned, secure facility for a new multimedia training center. Working with AED/LearnLink is

WorldLink, an NGO that has procured equipment for the four PTCs, while Computer Frontiers International is establishing connectivity. WorldLink also is installing computer equipment in previously established PTCs, where they are conducting most of the training to prepare teachers for teaching ITEK's multimedia courses. Eventually, WorldLink and AED/LearnLink will be conducting performance evaluations.

With so many partners intricately involved in the program development and training process, AED/LearnLink is navigating with the utmost care to facilitate the process and complete the pilot testing of all teacher training course materials.

From left to right, Professor Lutalo Bosa, Director of ITEK; an ITEK teacher; and a LearnLink staff member at a Coordinating Partners Meeting

Fredrick Wamala

ITEK teachers applying newly-acquired skills

LEADING THE WAY

At a recent USAID briefing, the Acting Mission Director Patrick Fleuret—an active participant in launching Connect-ED, along with US Ambassador Patrick Brennan and Uganda's Permanent Secretary in the Ministry of Education and Sports Francis Lubanga—floated new ideas about sharing Uganda's experience with computer-mediated teacher training. One suggestion was to exchange information about Uganda's Connect-ED program and to network at the ministerial level with the Development of Education in Africa (ADEA), a high-level government source of information about education matters for African countries.

With the highest proportion of African ministers with university degrees, Uganda now is leading the way in preparing better-qualified teachers in Africa. The Connect-ED project and the public-private-NGO partnership that supports it offer improved ways for training teachers to meet the expanding school-age population. The program also broadens the process of educational reform in Uganda and offers a potential model for other countries.

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